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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,463	04/20/2004	Kraig A. Kirschner	7234-118/10405046	6433

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EXAMINER

KING, ANITA M

ART UNIT PAPER NUMBER

3632

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/829,463

Applicant(s)

KIRSCHNER, KRAIG A.

Examiner

Anita M. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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This is the first office action for application number 10/829,463, Sway Brace Clamp, filed on April 20, 2004.

Drawings

The drawings are objected to because reference number "40: is not in Fig. 3 as indicated by the specification on page 8, paragraph 26, line 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figure 4 should be designated by a legend such as --Prior Art-- because according to the specification on page 8, paragraph 26 it is old and only that which is old

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is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the centers of curvature of the arcuate sections being offset, cited in claims 6 and 13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 5-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitations "the maximum distance" in line 1, "the nominal outside radius" and "the negative radial mill tolerance" in line 2. There is insufficient antecedent basis for these limitations in the claim.

There is an inconsistency between the language in the preamble and certain portions in the body of the claim, thereby making the scope of the claim unclear. The preamble in claim 1 clearly indicates that a subcombination is being claimed, e.g., "a sway brace clamp being for clamping pipe of specified outside diameter with mill tolerance...." This language would lead the examiner to believe that the applicant intends to claim only the subcombination of "a sway brace clamp," the pipe being only functionally recited. This presents no problem as long as the body of the claim also refers to the pipe functionally.

The problem arises when the pipe is positively recited within the body of the claim, such as, "the maximum distance is .005" less than the nominal outside radius

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minus the negative radial mill tolerance of the pipe," in claim 2 (also, see claims 5, 8, 11, and 14 for the same inconsistency). There is an inconsistency within the claim; the preamble indicates subcombination, while in at least one instance in the body of the claim there is a positive recital of structure indicating that the combination of a sway brace clamp and a pipe are being claimed. The examiner cannot be sure if applicant's intent is to claim merely the sway brace clamp or the sway brace clamp in combination with the pipe.

Applicant is required to clarify what the claims are intended to be drawn to, i.e., either the sway brace clamp alone or the combination of the sway brace clamp and the pipe. Applicant should make the language of the claim consistent with applicant's intent. In formulating a rejection on the merits, the examiner is considering that the claims are drawn to the combination and the claims will be rejected accordingly. If applicant indicates by amendment that the combination claim is the intention, the language in the preamble should be made consistent with the language in the body of the claims. If the intent is to claim the subcombination, then the body of the claims must be amended to remove positive recitation of the combination.

Claim 5 recites the limitations "the maximum distance" bridging lines 10 and 11, "the concave side" bridging lines 11 and 12; "the nominal outside radius" bridging lines 12 and 13, and "the negative radial mill tolerance" in line 13. There is insufficient antecedent basis for these limitations in the claim.

Claim 8 recites the limitations "the maximum distance" in line 1, "the nominal outside radius" and "the negative mill tolerance" in line 2. There is insufficient antecedent basis for these limitations in the claim.

Claim 11 recites the limitations "the maximum distance" bridging lines 11 and 12 and "the nominal outside radius" bridging lines 13-14. There is insufficient antecedent basis for these limitations in the claim.

Claim 14 recites the limitation "the maximum distance" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,998,691 to Brown. Brown discloses a clamp being for clamping pipe (9) of specified outside diameter with mill tolerance, comprising: two elongate bars, each elongate bar including an arcuate section (20a & 21a), a first straight section on one end of the arcuate section and a second straight section on the other end of the arcuate section, the first and second straight sections defining attachment surfaces on one side lying in a common attachment plate, each straight section having a through hole (7); fasteners (12d) extendable through the through holes to retain the two

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elongate bars together with the attachment surfaces of the first straight sections against the attachment surfaces of the second straight sections, respectively, each of the arcuate sections of the two elongate bars defining a center of curvature which lies substantially in the common attachment plane of the respective bar when clamped about the pipe with the attachment surface of the first straight sections against the attachment surfaces of the second straight sections, respectively; the fasteners each being a bolt with a nut (25) threadable thereon; short radiused sections attaching the ends of the arcuate sections to the straight sections; the maximum distance perpendicular to the attachment plate between the attachment plane and the concave side of the arcuate section for each elongate bar being less than the nominal outside radius minus the negative mill tolerance of the pipe of specified outside diameter when the bar is unstressed to provide a designed clamping force imposed on the pipe of specified outside diameter with the attachment surface of the two bars positioned against one another about the pipe, respectively; and each of the arcuate sections of the two elongate bars defining a center of curvature which lies substantially in the common attachment plane of the respective bar when clamped about the pipe with the attachment surfaces of the first straight sections against the attachment surfaces of the second straight sections, respectively.

Claims 1, 4-6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by 6,131,859 to Giuliano. Giuliano discloses a clamp (10) being for clamping pipe (11) of specified outside diameter with mill tolerance, comprising: two elongate bars, each elongate bar including an arcuate section (15), a first straight section (16) on one end of

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the arcuate section and a second straight section (16) on the other end of the arcuate section, the first and second straight sections defining attachment surfaces on one side lying in a common attachment plate, each straight section having a through hole (25a and 26); fasteners (27) extendable through the through holes to retain the two elongate bars together with the attachment surfaces of the first straight sections against the attachment surfaces of the second straight sections, respectively, each of the arcuate sections of the two elongate bars defining a center of curvature which lies substantially in the common attachment plane of the respective bar when clamped about the pipe with the attachment surface of the first straight sections against the attachment surfaces of the second straight sections, respectively; short radiused sections attaching the ends of the arcuate sections to the straight sections; the maximum distance perpendicular to the attachment plane between the attachment plate and the concave side of the arcuate section for each elongate bar being less than the nominal outside radius minus the negative radial mill tolerance of the pipe of specified outside diameter when the bar is unstressed to provide a designed clamping force imposed on the pipe of specified outside diameter with the attachment surfaces of the two bars positioned against one another about the pipe, respectively; and each of the arcuate sections of the two elongate bars defining a center of curvature which lies substantially in the common attachment plane of the respective bar when clamped about the pipe with the attachment surfaces of the first straight sections against the attachment surfaces of the second straight sections, respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown. Brown further teaches that the maximum distance is a predetermined amount less than the nominal outside radius minus the negative radial mill tolerance of the pipe of specified outside diameter. Brown discloses the claimed invention except for the amount being .005". It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the maximum distance .005" less than the nominal outside radius minus the negative radial mill tolerance for the purpose of providing a specified distance to accommodate a pipe having a specified outside diameter and such a modification would not have produced any unexpected results since no criticality is provided for the distance.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giuliano. Giuliano further teaches that the maximum distance is a predetermined amount less than the nominal outside radius minus the negative radial mill tolerance of the pipe of specified outside diameter. Giuliano discloses the claimed invention except for the amount being .005". It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the maximum distance .005" less than the nominal outside radius minus the negative radial mill tolerance for the

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purpose of providing a specified distance to accommodate a pipe having a specified outside diameter and such a modification would not have produced any unexpected results since no criticality is provided for the distance.

Claims 11, 12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,099,191 to Werner in view of Brown. Werner discloses an assembly (10) for supporting pipe of specified outside diameter with mill tolerance, comprising: a rigid link (24) including two attachments (12 and 36) displaced from one another; two elongate bars (38 & 40), each elongate bar including an arcuate section having two ends, first and second straight sections (42) having a through hole (44); fasteners extendable through the through holes to retain the two elongate bars together with the attachment surfaces of the first straight sections against the attachment surfaces of the second straight sections, respectively; the maximum distance perpendicular to the attachment plane between the attachment plane and the concave side of the arcuate section for each bar; the fasteners extending through the through holes of the straight sections and the second straight sections; each arcuate sections of the two elongate bars defining a center of curvature which lies substantially in the common attachment plane of the respective bar when clamped about the pipe with attachment surfaces of the first straight sections against the attachment surfaces of the second straight sections, respectively; and the fasteners each being a bolt (46) with a nut (48) threadable thereon.

Werner discloses the claimed invention except for the limitations of the maximum distance being less than the nominal outside radius minus one-half the mill tolerance of

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the pipe of specified outside diameter when the bar is unstressed to provide a designed clamping force imposed on the pipe with the attachment surfaces to the two bars positioned against one another about the pipe, the maximum distance being .005" less than the nominal outside radius minus the negative radial mill tolerance, and short radiused sections attaching the ends of the arcuate sections of the straight sections. Brown teaches that is it know to have a clamp including short radiused sections attaching the ends of the arcuate sections to the straight sections and the maximum distance being a predetermined amount less than the nominal outside radius minus the negative radial mill tolerance of the pipe and wherein the straight sections attaching against one another. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the clamp in Werner to have included the clamp as taught by Brown for the purpose of resisting upward or downward loads.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the maximum distance .005" less than the nominal outside radius minus the negative radial mill tolerance for the purpose of providing a specified distance to accommodate a pipe having a specified outside diameter and such a modification would not have produced any unexpected results since no criticality is provided for the distance.

Allowable Subject Matter

Claims 7 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 1,025,243 to Carpenter et al.

U.S. Patent 2,335,833 to Wood

U.S. Patent 3,570,794 to Kirschner

U.S. Patent 4,078,752 to Kindorf

U.S. Patent 4,767,087 to Combu

U.S. Patent 4,951,902 to Hardtke

U.S. Patent 5,161,836 to McKinnon

U.S. Patent 5,295,646 to Roth

U.S. Patent 5,565,175 to Hottovy et al.

Carpenter et al. disclose a pipe hanger having a clamp with arcuate and straight sections. Wood discloses a supporting and bracing device having a rigid link and a pipe clamp. Kirschner discloses a sway brace for fluid lines. Kindorf discloses a support and seismic bracing system. Combu discloses a pipe clamp for rocking or rigid suspensions of pipes. Hardtke discloses a support bracket for pipes. McKinnon discloses two clamp

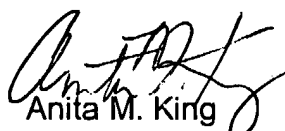
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members for connecting pipe. Roth discloses a brace to prevent a pipe from moving longitudinally within a hanger in the event of swaying motion of a structure. Hottovy et al. disclose an apparatus for producing conduits having mill tolerance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita M. King whose telephone number is (571) 272-6817. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Anita M. King
Primary Examiner
Art Unit 3632

June 26, 2005